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To: 'microsoft.atr(a)usdoj.gov'

**Date:** 1/23/02 8:59am **Subject:** Microsoft Settlement

Good morning.

I have two comments on the Microsoft Anti-Trust case, and its pending settlement.

The first regards access to the secret inner workings of the Microsoft Operating Systems (OSs) and their associated user interfaces. As part of the settlement, Microsoft should be required to publish documentation for all interfaces between all software components, file formats, and communications protocols. For years, Microsoft has implemented various secret and incompatible interfaces, which prevents development of any competitive products. For example, the market leader WordPerfect was quite effectively driven from the market by Word for Windows' better performance under Windows 95, because the developers of Word had access to complete documentation for the Win9x interfaces, while the WordPerfect team were required to make do with the pittance released to the general public by Microsoft. Internet Explorer was able to push out the market leader Netscape by similar tactics.

Requiring Microsoft to publish all of their interfaces would level the playing ground, and might well eliminate the desire to break up the software giant. Access to the interfaces would allow competitors to write better code, and would benefit end users greatly, as more and better software would become much easier to develop for each OS.

Finally, for my own field, network security, the boon would be great indeed. Microsoft recently announced that they are finally going to start paying some attention to security, but it's too little, too late. Access to Microsoft's interfaces would allow much more thorough probing for security weaknesses and would provide better opportunity for rapid identification and correction of problems.

The second comment is this: Why in the world didn't anyone from the Department of Justice (DOJ) notice Microsoft's greatest concern in the whole Internet Explorer fiasco? Microsoft's spokesman repeatedly said in intervviews "you can not tell us what makes up an operating system." In fact, any first-year computer science student can tell you what makes up an operating system. An OS is the interface between applications and hardware. It handles the input and output of various devices. That is all. Internet Explorer is not part of the Operating System. It's an application, like Word, Excel, or my new video game.

This brings me to the crux of Microsoft's fears: Windows is not an

operating system, either. Windows is a Graphical User Interface (GUI) laid over an Operating System. Microsoft's desperate prevarication over the "definition of an operating system" came because if anyone had made a cogent argument that the GUI and the OS are separate, Microsoft could have been required in a settlement to separate the GUI and the OS. It is quite conceivable that Microsoft could sell the OS (which Microsoft mis-labels the Kernel) from the GUI, which would permit competitors to sell GUIs that would be 100% compatible with all existing software. I could be running the Windows XP kernel with a Norton GUI on my system, if Microsoft hadn't been allowed to maintain the fiction that somehow the GUI was an integral part of the OS.

In my perfect world the Microsoft GUI and Microsoft OS would be separated. This isn't likely to happen at this late stage in the game, but I would like someone at DOJ to keep it in mind for the next time Microsoft crosses the line.

Thank you,

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